



Water-Data Report 2007

**380106081371801 Local number Boo-0248**

Pennsylvanian aquifers  
 Kanawha Formation  
 Boone County, WV

LOCATION.--Lat 38°01'06", long 81°37'18" referenced to North American Datum of 1927, Boone County, WV, Hydrologic Unit 05050009.

**WATER-QUALITY RECORDS**

REMARKS.--During the period of April 25 to June 7, 2007, 30 wells were sampled as part of an ongoing study with the West Virginia Department of Environmental Protection-Division of Water and Waste Management (WV-DEP-DWWM) of ambient ground-water quality in West Virginia. Samples were collected from wells in the following hydrologic units: Coal (05050009), Elk (05050007), Lower Kanawha (05050008), North Branch Potomac (02070002), and Tygart Valley (05020001). Sample analyses included field determinations, major ions, nutrients, microbiological indicators, metals, volatile organic compounds, and radon.

Since 1999, 30 wells have been selected and sampled annually to characterize the ambient quality of West Virginia's ground-water resources. Data for samples collected from 1999-2005 were published in "Water Resources Data-West Virginia-Water Year XXXX, Water-Data Report WV-XX-01". The electronic versions of these reports from 2001-2005 can be found at: <http://pubs.usgs.gov/wdr/#wv>. Data from 1999-2000 can be requested via email at [dc\\_wv@usgs.gov](mailto:dc_wv@usgs.gov). Data from 2006 can be found at: <http://web10capp.er.usgs.gov/imf/sites/adr06/launch2.jsp>.

**WATER-QUALITY DATA  
 WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 1 of 7

[Remark codes: <, less than; >, greater than; E, estimated; M, presence verified but not quantified.]

Date	Time	Depth of well, feet below LSD (72008)	Altitude of land surface feet (72000)	Pump or flow period prior to sampling, minutes (72004)	Turbidity white light, 90+/-30 corrctd NTRU (63676)	Barometric pressure, mm Hg (00025)	Carbon dioxide, unfltred mg/L (00405)	Dissolved oxygen, mg/L (00300)	pH, unfltred field, std units (00400)	Specific conductance, µS/cm wat unft 25 degC (00095)	Temperature, deg C (00010)	Calcium water unfltred recover-able, mg/L (00916)	Magnesium, water, unfltred recover-able, mg/L (00927)
May 07...	1250	2,000	950	>32	<1.0	748	.1	<1.0	9.4	266	14.5	13.3	3.52

**WATER-QUALITY DATA  
 WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 2 of 7

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Date	Potassium, water, unfltred recover-able, mg/L (00937)	Sodium, water, unfltred recover-able, mg/L (00929)	ANC, wat unft fixed end pt, lab, mg/L as CaCO3 (90410)	Alkalinity, wat flt inc tit field, mg/L as CaCO3 (39086)	Bicarbonate, wat flt incrm. titr., field, mg/L (00453)	Carbonate, wat flt incrm. titr., field, mg/L (00452)	Bromide, water, fltred, mg/L (71870)	Chloride, water, fltred, mg/L (00940)	Fluoride, water, fltred, mg/L (00950)	Sulfate, water, fltred, mg/L (00945)	Residue on evap. at 180degC wat flt mg/L (70300)	Ammonia water, fltred, mg/L (71846)	Ammonia water, fltred, mg/L as N (00608)
May 07...	1.83	41.4	129	126	154	<1	.04	9.80	.25	1.26	153	.42	.328

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**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 3 of 7

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Date	Nitrite + nitrate fltrd, mg/L as N (00631)	Nitrite water, fltrd, mg/L as N (00613)	Total nitrogen, wat unfltrd by analysis, mg/L (62855)	Ortho-phosphate, water, fltrd, mg/L (00660)	Ortho-phosphate, water, fltrd, mg/L as P (00671)	Phosphorus, water, unfltrd, mg/L (00665)	Organic carbon, water, unfltrd, mg/L (00680)	E coli, Defined Substr. Tech., water, MPN/100 mL (50468)	Fecal coliform, M-FC 0.7u MF col/100 mL (31625)	Total coliform, Defined Tech., MPN/100 mL (50569)	Aluminum, water, unfltrd recoverable, µg/L (01105)	Antimony, water, unfltrd, µg/L (01097)	Arsenic, water, unfltrd, µg/L (01002)
May 07...	<.06	<.002	.37	.155	.051	.050	.7	<1	<1	<1	E2	<.2	<.20

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 4 of 7

[Remark codes: &lt;, less than; &gt;, greater than; E, estimated; M, presence verified but not quantified.]

Date	Barium, water, unfltrd recoverable, µg/L (01007)	Beryllium, water, unfltrd recoverable, µg/L (01012)	Cadmium, water, unfltrd recoverable, µg/L (01027)	Chromium, water, unfltrd recoverable, µg/L (01034)	Iron, water, unfltrd recoverable, µg/L (01045)	Lead, water, unfltrd recoverable, µg/L (01051)	Manganese, water, unfltrd recoverable, µg/L (01055)	Mercury, water, unfltrd recoverable, µg/L (71900)	Nickel, water, unfltrd recoverable, µg/L (01067)	Selenium, water, unfltrd recoverable, µg/L (01147)	Thallium, water, unfltrd recoverable, µg/L (01059)	Zinc, water, unfltrd recoverable, µg/L (01092)	1,1,1-Trichloroethane, water, unfltrd, µg/L (34506)
May 07...	671	<.06	<.02	<.60	17	<.06	17.1	<.010	E.09	.11	<.18	E1.6	<.1

**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 5 of 7

[Remark codes: &lt;, less than; &gt;, greater than; E, estimated; M, presence verified but not quantified.]

Date	CFC-113, water, unfltrd, µg/L (77652)	1,1-Dichloroethane, water, unfltrd, µg/L (34496)	1,1-Dichloroethene, water, unfltrd, µg/L (34501)	1,2-Dichlorobenzene, water, unfltrd, µg/L (34536)	1,2-Dichloroethane, water, unfltrd, µg/L (32103)	1,2-Dichloropropane, water, unfltrd, µg/L (34541)	1,3-Dichlorobenzene, water, unfltrd, µg/L (34566)	1,4-Dichlorobenzene, water, unfltrd, µg/L (34571)	Benzene, water, unfltrd, µg/L (34030)	Bromo-dichloromethane, water, unfltrd, µg/L (32101)	Chlorobenzene, water, unfltrd, µg/L (34301)	cis-1,2-Dichloroethene, water, unfltrd, µg/L (77093)	Di-bromochloromethane, water, unfltrd, µg/L (32105)
May 07...	<.1	<.1	<.1	<.1	<.2	<.1	<.1	<.1	<.1	<.1	<.1	<.1	<.2

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**WATER-QUALITY DATA**  
**WATER YEAR OCTOBER 2006 TO SEPTEMBER 2007**

Part 6 of 7

[Remark codes: &lt;, less than; &gt;, greater than; E, estimated; M, presence verified but not quantified.]

Date	Di-chloro-di-fluoro-methane wat unf µg/L (34668)	Di-chloro-methane water, unfltrd µg/L (34423)	Di-ethyl ether, water, unfltrd µg/L (81576)	Diiso-propyl ether, water, unfltrd µg/L (81577)	Ethyl-benzene water, unfltrd µg/L (34371)	Methyl-tert-pentyl ether, water, unfltrd µg/L (50005)	meta-+ para-Xylene, water, unfltrd µg/L (85795)	o-Xylene, water, unfltrd µg/L (77135)	Styrene water, unfltrd µg/L (77128)	t-Butyl ethyl ether, water, unfltrd µg/L (50004)	Methyl t-butyl ether, water, unfltrd µg/L (78032)	Tetra-chloro-ethene, water, unfltrd µg/L (34475)	Tetra-chloro-methane water, unfltrd µg/L (32102)
May 07...	<.2	<.2	<.2	<.2	<.1	<.2	<.2	<.1	<.1	<.1	<.2	<.1	<.2

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Part 7 of 7

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Date	Toluene water, unfltrd µg/L (34010)	trans-1,2-Di-chloro-ethene, water, unfltrd µg/L (34546)	Tri-bromo-methane water, unfltrd µg/L (32104)	Tri-chloro-ethene, water, unfltrd µg/L (39180)	Tri-chloro-fluoro-methane water, unfltrd µg/L (34488)	Tri-chloro-methane water, unfltrd µg/L (32106)	Vinyl chlor-ide, water, unfltrd µg/L (39175)	Rn-222, water, unfltrd pCi/L (82303)
May 07...	<.1	<.1	<.2	<.1	<.2	<.1	<.2	80